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ABSTRACT

This teaching guide is premised on the ideas that economic development is the best means to a better life for the three-quarters of the world's people who live in developing countries, and that economic development will also contribute to a healthy and vigorous world economy. The goals of the guide are to increase student understanding and knowledge of economic development and social conditions worldwide, and to develop their skills and abilities to analyze and synthesize information and to think critically. The topics covered are: (1) life expectancy; (2) primary school enrollment rate; (3) population growth rate; (4) Gross National Product (GNP) per capita; and (5) merchandise exports. Each section includes a brief description of the topic; classroom questions designed to further understanding of the topic; map exercises; statistical exercises using supplied data, charts, and tables; review questions requiring analysis and synthesis; suggested supplemental activities; and an evaluative question and answer worksheet. A group of culminating activities and questions gives students an opportunity to integrate the knowledge and understanding developed in the five topic areas. A combined question and essay test is provided to be used as an evaluative tool. A blank comparative data table and six maps are also included in the guide. (PPB)

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Teaching Guide

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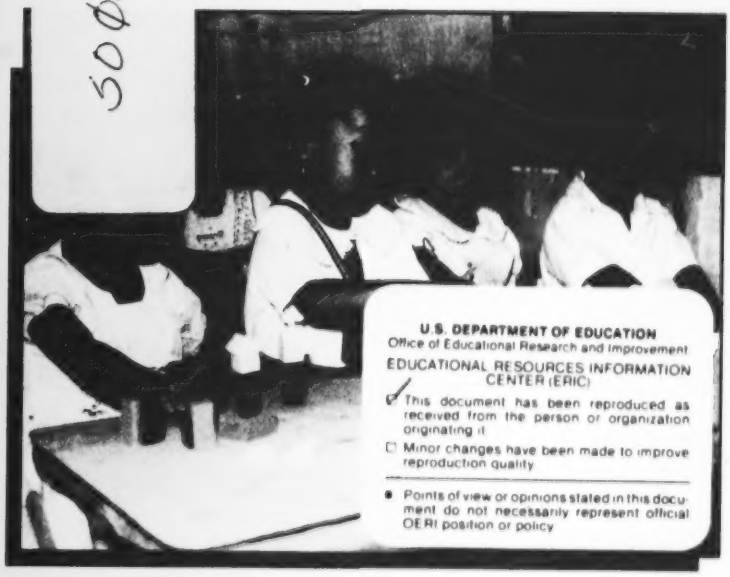

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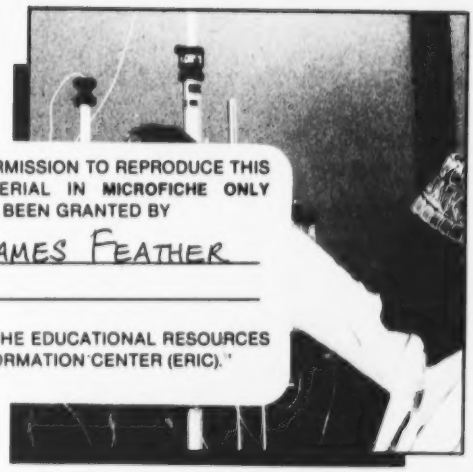

Second Edition

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The Development Data Book

Teaching Guide

Second Edition

The World Bank
Washington, D.C.

Statistics for *The Development Data Book* were supplied by the World Bank's International Economics Department, which draws on an array of national and international sources in compiling social and economic data. The maps were prepared by the World Bank's Cartography Division and are based on the Eckert IV equal-area projection. Credits for the World Bank photos on the front cover are, clockwise from the top, Ray Witlin (India), Kay Chernusch (Kenya), Ray Witlin (Indonesia), and on the back cover, clockwise from the top, the Inter-American Development Bank (Brazil), Ray Witlin (Burkina Faso), Chad Wyatt (Honduras).

The text and charts for the first edition of *The Development Data Book* were prepared by Harriet Baldwin, Bruce Ross-Larson, and Gerald Martin Quinn. The teaching guide was prepared by Harriet Baldwin and edited by Bruce Ross-Larson. The revised and updated editions of *The Development Data Book* and *Teaching Guide* were prepared by Katherine Sheram and edited by Carol Rosen. Graphics were done by Pensri Kimpitak and Les Barker.

The findings, interpretations, and conclusions expressed in this study are entirely those of the authors and should not be attributed in any manner to the World Bank, to its affiliated organizations, or to members of its Board of Executive Directors or the countries they represent. The maps that accompany the text have been prepared solely for the convenience of readers; the designations and presentation of material in them do not imply the expression of any opinion whatsoever on the part of the World Bank, its affiliates, or its Board or member countries concerning the delimitations of boundaries or national affiliation.

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Introduction

This teaching guide accompanies *The Development Data Book* published by the World Bank. The learning activities it presents are designed for students who are studying world geography, world history, economics, international studies, or current affairs.

Point of view

The point of view of *The Development Data Book* and this teaching guide is as follows:

- Economic development is a means to a better life for the three-quarters of the world's people who live in developing countries.
- Greater economic strength and higher standards of living in the developing countries contribute to a healthy, vigorous world economy.
- The increased interdependence among countries that accompanies economic development can benefit all countries.

Goals, objectives, and evaluation

The Development Data Book and teaching guide have two main goals:

- To increase students' knowledge and understanding of economic development and of social and economic conditions in developing countries.
- To strengthen students' ability to perform statistical calculations; to make and interpret maps, charts, and tables; to analyze and synthesize information; to make inferences and generalizations; and to think critically in solving problems and making decisions.

As a result of using *The Development Data Book* and teaching guide, students should be able to do the following:

- Contrast living conditions in developing and industrial countries.
- Associate given statistics with low-income developing countries, middle-income developing countries, and industrial countries.
- Show an understanding of the relationship among:
  - infant mortality, life expectancy, and national income level
  - school enrollment, educational level, and standard of living
  - birth rate, death rate, and population growth rate
  - production of goods and services (gross national product, or GNP), population, and GNP per capita
  - exports, imports, and borrowing.
- Make inferences from statistics about living conditions and levels of economic development in a country.
- Express an opinion about living conditions in developing countries and use statistics to support it.

A Test to measure the achievement of these objectives is included in this teaching guide.

Teaching *The Development Data Book*

- Begin teaching each indicator by discussing the definition of the indicator. Then continue with the map and afterward move to the charts. Activities in the teaching guide also follow this pattern.
- Activities in the teaching guide are not organized by increasing complexity. There are more activities in each section than most teachers will wish to use. Activities marked with an asterisk (*) are for highly motivated students and those with greater knowledge of statistics and developing countries. Information for teachers is printed in blue and will not photocopy.
- A worksheet is provided at the end of each chapter to consolidate and measure learning for that indicator.
- If possible, students should use calculators when working with the data.
- When making maps, students may ignore the small countries that are difficult to show.

For a copy of the most recent *Catalog of Educational Materials*, write to World Bank Publications Sales Unit, Washington, D.C. 20433, U.S.A.

Beginning Activities

Getting an Overview

Look through *The Development Data Book* to get an idea of its content and format. Study the photographs on the cover. What do they show? Read the Introduction on the inside front cover and About the World Bank on the inside back cover. Look at the Definitions and Notes on page 16 and read the definitions of developing country, low-income developing country, middle-income developing country, and industrial country. Now discuss these questions.

1. What does "economic development" mean?
2. What does "standard of living" mean?
3. Why must people be cautious when using statistics?
4. What kinds of things can statistics tell you about a country? What kinds of things are they unable to tell you?
5. Who published *The Development Data Book*?
6. What would you expect the publisher's point of view to be?

Understanding How Countries Are Grouped

1. The 129 countries in *The Development Data Book* are grouped into six geographic regions, which are listed in the Data Table on page 12. What are the six regions?

2. Look again at the Data Table. The 129 countries are also organized into three main economic groups.

a. What are they?

b. What is the difference between these groups?

c. How many countries are there in each group?

d. Which group is your country in?

3. Notice that thirteen countries in the Data Table are not included in the three main economic groups. What countries are they? To what economic groups do they belong?

Where in the World Is It?

1. Using the blank outline map of the world, draw a line around the six geographic regions listed in the Data Table. Now locate each industrial country listed in the Data Table and shade it in with your pencil. (If you need help finding a country, look at the labeled outline map of the world.)

2. Using your regional outline maps and the Data Table, label with red pen or pencil the name of each low-income country and put "1" by it. Next label with blue pen or pencil the name of each middle-income developing country and put "m" by it. Now use your pencil to write "h" on the high-income oil-exporting countries and "n" on the nonreporting nonmember countries. (If you need help finding a country, look at the labeled outline map of the world.)

3. Look at the maps you have made. Where do industrial countries tend to be located?

Where do low-income developing countries tend to be located?

Where do middle-income developing countries tend to be located?

Life Expectancy

(Pages 2 and 3 in *The Development Data Book*)

Life expectancy at birth is the average number of years newborn babies can be expected to live if health conditions stay the same. It reflects the health of a country's people and the quality of care they receive when they are sick.

- Life expectancy at birth is higher in industrial countries than in all but a few developing countries
- Infants and children account for many more of the deaths in developing countries than in industrial countries. Children less than five years of age are at particular risk.
- The percentage of infants surviving the first year of life has increased in all countries since 1965, with the greatest increase in the poorest countries. This increase correlates in general with economic development and specifically with improved water supply, sanitation, hygiene, health care, education, nutrition, and level of income.
- Life expectancy has gone up since 1965, with a greater increase in developing than in industrial countries.

Understanding the Indicator

1. Read the definition of life expectancy in the color band at the top of page 2 in *The Development Data Book* and answer the following questions.

1. What does life expectancy at birth mean?
2. What does it tell you about a country?
3. On the basis of your own experience, what do people need to maintain health?
4. On the basis of your own experience, what do people need when they are ill?
5. From your answers to questions 3 and 4, what inferences can you make about conditions in a country where life expectancy is low?

2. Life expectancy statistics do not tell how long a person will *actually* live but rather on average how long that person is *likely* to live. Changes in income, health conditions, and education are constantly occurring and will affect life expectancy in a country. Read the list below and decide whether each situation is likely to increase or reduce life expectancy.

1. A severe drought causes a famine.
2. A new health clinic opens and more children are inoculated against childhood diseases.
3. Village women attend classes to learn more about good nutrition and hygiene.
4. Traveling nurses monitor the growth of infants and provide extra food to those who are not growing well.
5. Men from a low-income neighborhood lose their jobs when the factory where they work closes.

Interpreting the Map

1. Study the world map on pages 2–3 and answer the following.

1. What color on the map represents countries with higher life expectancies? Where do these countries tend to be located?
2. What color represents countries with lower life expectancies? Where do these countries tend to be located?
3. Which continent is the lightest color? What assumptions might you make about living conditions there?

2. Look at the map. List five countries in which life expectancy is less than 50 years, five in which it is between 50 and 69 years, and five in which it is 70 years or more. Now look at the Data Table on page 12 of *The Development Data Book* and find the economic group of each country in your list—low-income developing (l), middle-income developing (m), or industrial (i). Use this information to make a general statement describing the relation between life expectancy and economic development.

3. On the basis of GNP per capita (as shown in the Data Table), the poorest countries in Central and South America and the Caribbean in 1986 were Haiti, Bolivia, Honduras, Nicaragua, and the Dominican Republic.

1. What color are these countries on the map? What assumptions might you make about living conditions in these countries?

2. List the countries in Central and South America and the Caribbean in which life expectancy is 70 years or more. What assumptions might you make about living conditions in these countries?

Understanding Chart 1

1. Study Chart 1, which shows the proportion of deaths by age group in 1986, and do the following:

1. Using the data in Chart 1, complete the table:

Percentage of deaths by age, 1986

	0–4 years	5 years and more
		89.5
		98.7

In which group of countries do infants and young children account for a larger share of all deaths?

2. In which group of countries can more newborn babies be expected to survive? Why?

3. Given the data in Chart 1, what conclusions can you draw about health conditions in an industrial country such as Canada and those in a developing country such as Mali?

4. Why are children less than five years old more likely to die than older people?

5. What specific steps could you take to help increase life expectancy among infants and young children?

2. Study Chart 1 and the text around it. To understand the text better, study the table below, which shows life expectancy and total years of life at various ages for people in industrial and developing countries. "Total years of life" is a person's actual age plus how many *additional* years he or she can expect to live. For example, life expectancy for 15-year-olds in industrial countries is 62 additional years, or a total of 77 years (15 plus 62).

Life expectancy tends to increase with age. Because infants and children in developing countries are at much greater risk of dying, life expectancy at birth is

much lower in those countries. In other words, if a person can survive childhood, his or her chances of surviving to old age improve dramatically.

	Life expectancy		Total years of life	
	Industrial countries	Developing countries	Industrial countries	Developing countries
At birth	76	61	76	61
At 1 year	76	65	77	66
At 5 years	72	63	77	68
At 15 years	63	55	78	70
At 30 years	48	42	78	72
At 45 years	34	30	79	75
At 60 years	21	18	81	78

1. Calculate the difference between life expectancy and total years of life in industrial countries and developing countries at each age shown in the chart.

2. What happens to these differences as people in both groups of countries get older?

3. What does the table tell you about health conditions and their effect on people at various ages in both groups of countries?

4. If you wanted to increase life expectancy in developing countries, on what age group would you focus your efforts?

Understanding Chart 2

1. Study Chart 2, which shows the percentage of infants surviving the first year of life in 1965 and 1986, and read the definition of infant mortality rate in the Definitions and Notes on page 16. Then do the following:

1. Complete this sentence:
   The percentage of infants who died during the first year of life in the poorest developing countries was approximately _____ percent in 1965 and _____ percent in 1985.
2. What is the difference between "infant mortality rate" and the "proportion of deaths by age" (Chart 1)?
3. Refer to column 2 in the Data Table. In which country has the infant mortality rate *not* gone down since 1965?
4. In India between 1965 and 1986 the number of infant deaths out of every 1,000 live births went from 151 down to 86. What percentage decrease was this? (Subtract the 1986 number from the 1965 number, divide the result by the 1965 number, and multiply by 100 to get the percentage.)

2. If more newborn babies lived, what might be the effect on each of the following:

- the attitudes of parents about having children
- school enrollment in five or six years
- a family's need for food
- a country's need for food
- attitudes toward family planning
- the need for jobs in 15 or 20 years
- the number of productive adults in 15 or 20 years
- a family's educational costs.

Understanding Chart 3

1. Using the data in Chart 3 on life expectancy at birth in 1965 and 1986, as well as the text surrounding the chart, complete the table:

Life expectancy

	1965	1986	Years added
All countries			
All developing countries			
Low-income developing countries			
Middle-income developing countries			
Industrial countries			
United States			

1. What was the overall trend in life expectancy between 1965 and 1986?
2. Look at the data for low-income developing, middle-income developing, and industrial countries. Which group of countries had the greatest percentage increase in life expectancy? (Subtract the 1965 number from the 1985 number, divide the result by the 1965 number, and multiply by 100 to get the percentage.)

3. What do the numbers suggest about living conditions in low-income and middle-income developing countries?

2. Refer to Chart 3 and to column 1 in the Data Table.

1. How did life expectancy in your country change between 1965 and 1986?
2. In how many countries in 1986 was life expectancy below life expectancy in your country?
3. How was the United States in 1900 like some developing countries today?

   What assumptions can you make about living conditions in the United States in 1900?

3. How does a decrease in infant mortality affect life expectancy? Why?

Using the Data Table

Use a Comparative Data Table to compare life expectancy in four developing countries from four different regions of the world. Save the table for later use. Follow these steps:

1. In the column at the left of the table, write the following countries and their regions:
   - Argentina (South America)
   - Burkina Faso (Sub-Saharan Africa)
   - Republic of Korea (Asia and the Pacific)
   - Oman (Middle East and North Africa)
2. In column 1 at the top of the table, write the heading "Life Expectancy, 1986." Read the definition of life expectancy in the Definitions and Notes.
3. Use the Data Table to find life expectancy in 1986 in each country. Rank the countries with "1" equaling the highest life expectancy and "4" the lowest. Write the appropriate ranking number in the spaces in column 1.

   Make a general statement comparing the four countries.
4. Find each of the four countries on the map on pages 2–3 of *The Development Data Book*. Compare the color of each country with those of its neighbors. To what extent is each country typical of conditions in its area and region? Make a general statement comparing the four regions.

Thinking about What You Have Learned

1. Why do you think the increase in infant survival between 1965 and 1985 was greatest in the poorest developing countries?

2. Assume that you live in a village in a developing country where life expectancy is low. You have six brothers and sisters; four other siblings have died. Your mother is pregnant.

1. What are the advantages for your parents in having many children?
2. What steps might be taken in your village so that fewer children would die?
3. Why would it be difficult to take these steps?

3. Assume that you are the Minister of Health in a country where life expectancy at birth is 47 years. Listed below are some projects you are considering that might extend life expectancy. You can afford only five projects. Which five will you choose? Give reasons for your choices.

1. Train health workers to immunize children in urban slums against common childhood diseases.
2. Provide classes in nutrition for pregnant and nursing mothers in villages.
3. Build low-cost health centers in rural market towns, and train workers to provide routine medical care in them.

4. Equip a mobile health unit to work in rural areas.
5. Build a hospital in an overcrowded city.
6. Improve the water supply in the capital city.
7. Develop a curriculum in health education for primary schools.
8. Start research on the control of diseases that are common in your country.
9. Build a wing on an existing hospital to house modern diagnostic instruments and high-tech treatment equipment

4. Do you agree or disagree with the following statement? Support your answer.

"Because life expectancy in developing countries has been rising, it will continue to rise in the future."

Supplementary Activities

1. Using a Comparative Data Table, compare improvements in life expectancy and infant mortality in one industrial and four developing countries.

1. In the column at the left of the table, write the names of these five countries: Australia, Indonesia, Malawi, Morocco, Venezuela. To which regional and economic group does each belong?
2. Write these headings for the columns:
   - Life expectancy at birth, 1986
   - Increase in life expectancy since 1965
   - Infant mortality rate, 1986
   - Decrease in infant mortality rate since 1965
3. Read the note about infant mortality in the Definitions and Notes. Use the data in columns 1 and 2 of the Data Table to complete your table.
4. Rank the five countries for each indicator by writing a number (from 1 to 5) in the upper right-hand corner of each box:
   - Life expectancy: 1 = longest, 5 = shortest
   - Increase in life expectancy: 1 = greatest, 5 = smallest
   - Infant mortality rate: 1 = lowest, 5 = highest
   - Decrease in infant mortality: 1 = greatest, 5 = smallest
5. Assume for a moment that all developing countries are like those in your table and that all industrial countries are like Australia.
   a. In what way are developing countries ahead of industrial countries in life expectancy and infant mortality?
   b. In what way are industrial countries ahead of developing countries in both indicators?

2. Use a Comparative Data Table to help compare life expectancy and health conditions in your own country with those in Pakistan (a low-income developing country), Colombia (a middle-income developing country), and Canada (an industrial country).

1. In the column down the left side of the table write Pakistan, Colombia, Canada, and the name of your country. Next to each country write the regional and economic groups to which it belongs.
2. In the columns across the top of the table write these headings:
   - Life expectancy, 1986
   - Infant mortality, 1985
   - Population per physician, 1981
   - Daily calorie supply per capita, 1986
3. Read the notes in the Definitions and Notes that explain these indicators. Then use columns 1 through 4 in the Data Table to complete your table.
4. In a few sentences explain why the data in your table are different in developing and industrial countries. Describe what the data suggest about living conditions in these two groups of countries.
5. Save your Comparative Date Table for later use.

3. Read the note in the Definitions and Notes about daily calorie supply per capita. Then do the following.

1. Using a world outline map and column 4 in the Data Table, make a map showing daily calorie supply per capita. Use the intervals below to categorize each country, and make a key showing them. Use colors ranging from light to dark, with the lightest for the first interval, the darkest for the fourth, and no shading for countries that have no data available. (Or use the following symbols: oooo for the first interval; xxxx for the second; light shading for the third; dark shading for the fourth; and no shading for countries that have no data available.)

   1,900 or less
   2,000–2,499
   2,500–2,999
   3,000 or higher
   Data not available
2. Compare your map with the Life Expectancy map on pages 2–3 of *The Development Data Book*. What relationship, if any, do the maps suggest between life expectancy and daily calorie supply per capita?

Name _____

Date _____

Worksheet 1: Life Expectancy

1. Statistics on life expectancy at birth tell which of the following:
   a. how long a person will actually live, unless health conditions improve.
   b. how long on the average a person is likely to live, assuming health conditions remain unchanged. [x]
   c. what chance a person has of surviving the first year of life.

2. A life expectancy at birth of less than 50 years is typical of
   a. low-income developing countries. [x]
   b. middle-income developing countries.
   c. industrial countries.

3. Children under age five make up this proportion of the deaths in developing countries:
   a. one half.
   b. one quarter. [x]
   c. one tenth.

4. List two reasons why children in developing countries run a greater risk of dying than children in industrial countries. [They often have inadequate food, and health care.]

5. Infant mortality tends to be
   a. low in countries with low life expectancy.
   b. high in countries with high life expectancy.
   c. high in countries with low life expectancy.

6. Was life expectancy higher in industrial or developing countries in 1986? in 1965? [In industrial countries in both years]

7. What has happened since 1965 to the gap in life expectancy between industrial and developing countries? [The gap has narrowed.]

8. What region of the world tends to have the most countries with low life expectancy? [Africa] with high life expectancy? [Europe]

9. What are two things a country can do to help increase the life expectancy of its people? [Ensure a constant supply of clean water. Provide health care for families — especially mothers and children.]

10. The greatest improvement in life expectancy since 1965 has been made in
    a. low-income developing countries. [x]
    b. middle-income developing countries.
    c. industrial countries.

Primary School Enrollment Rate

Pages 4 and 5 in *The Development Data Book*

The primary school enrollment rate is the number of students enrolled in primary school as a percentage of the number of primary school-age children. It shows the proportion of people in a country who have the chance to receive a basic education in reading, writing, and mathematics.

- The primary school enrollment rate is lower in many developing countries than in industrial countries.
- Between 1965 and 1985, primary school enrollment increased in most developing countries, especially in low-income countries.
- Many more children in developing countries are enrolled in primary school than in secondary school.
- Boys in developing countries are much more likely than girls to be enrolled in primary or secondary school.
- Education in developing countries helps increase people's income, standard of living, and productivity and also helps reduce infant mortality rates.
- Primary school students in low-income and middle-income developing countries are less likely to complete primary school than are students in industrial countries.

Note that in this revised edition of *The Development Data Book* the primary school enrollment rate has replaced the adult literacy rate as an indicator of development. This is because World Bank statistics on school enrollment are more reliable than those on adult literacy.

Understanding the Indicator

1. Read the definition of primary school enrollment rate in the color band at the top of page 4 in *The Development Data Book* and answer the following questions.

1. What does the primary school enrollment rate measure?
2. What does it tell you about a country? [The proportion of people in a country who are receiving a basic education.]
3. What is a basic education? [learning to read, write, and do simple mathematics.]

   Do you think people need a basic education to lead better lives? Why or why not?
4. Based on the knowledge you already have, what are some reasons why children and young people in developing countries might not attend school? [Schools are often far away; children are needed to work at home, in the fields, or in the family business; families are too poor to pay school fees or buy school clothing; children are frequently ill; schooling may seem irrelevant.]

2. Using the data below, calculate the primary school enrollment rate (that is, the percentage of children enrolled in primary school) in countries A, B, and C. (Divide the number enrolled by the total population of primary school age; multiply by 100 to convert the decimal to a percentage; and round to the nearest percent.)

	Number enrolled in primary school	Total primary school-age population	Primary school enrollment rate
Country A	6,000,000	11,765,000	[51%]
Country B	11,000,000	31,429,000	[35%]
Country C	20,000,000	20,408,000	[98%]

Interpreting the Map

1. Study the world map on pages 4–5 and do the following.

1. What color on the map represents countries with higher primary school enrollment rates? Where do these countries tend to be located?
2. What color represents countries with lower primary school enrollment rates? Where do these countries tend to be located?
3. Which continent is the lightest color? What assumptions might you make about living conditions there?

2. Look at the map. List five countries in which the primary school enrollment rate is less than 50 percent, five in which it is between 50 percent and 89 percent, and five in which it is 90 percent or more. Now look at the Data Table on page 12 of *The Development Data Book* and find the economic group to which each country you listed belongs—low-income developing, middle-income developing, or industrial—and write it next to the country's name. Which group of countries tends to have the highest primary school enrollment rate? the lowest?

3. The average primary school enrollment rate for the world was 98 percent in 1985. Study the map and name five countries in which the rate is below the world average. To determine which of the darkest countries on the map are above the world average, refer to column 5 of the Data Table. Name five of those countries. Is your country's rate above or below the world average?

Understanding Chart 4

Note: Data in this chart are aggregates; data in the Data Table are not.

1. Study Chart 4, which shows primary school enrollment rates in developing and industrial countries for 1965 and 1985, and read the text around it. Answer the following questions.

1. In which group(s) of countries did the enrollment rate for primary school increase between 1965 and 1985?
2. Did the number of children of primary school age increase or decrease in developing countries from 1965 to 1985? Why is this significant?

2. Refer to columns 5 and 6 in the Data Table.

1. Select two industrial, two low-income developing, and two middle-income developing countries.
2. Find the primary school enrollment rates in these countries. Then find the secondary school enrollment rates.
3. Calculate the differences between the two enrollment rates in each country.
4. Make a general statement comparing the difference in the two enrollment rates in the industrial and developing countries. Based on the knowledge you already have, what do you think might explain the difference?

Understanding Chart 5

1. Study Chart 5, which shows school enrollment rates for girls and boys in developing countries in 1965 and 1985, and do the following.

1. In developing countries, who are more likely to be enrolled in primary school, girls or boys? Is the same true for secondary school?
2. What happened to enrollment rates for girls and boys in primary and secondary school between 1965 and 1985?
3. What happened to the gap between enrollment rates for girls and boys in primary and secondary school between 1965 and 1985?
4. Based on knowledge you already have, why do you think more boys than girls are enrolled in primary and secondary school?

2. Listed below are some events that might occur in a family in a developing country.

- School fees are eliminated.
- By using more fertilizer, the family produces 20 percent more crops on its land.
- A small factory opens and offers jobs to women.
- The spring rains fail and there is a drought.
- The mother attends literacy classes.
- A school is built a mile away; the closest school previously was 20 miles away.
- The marriage contract of a young woman relative is canceled when the husband-to-be finds that she has been to primary school.
- The mother dies.
- The eldest son gets a job in a factory.
- A new baby is born.

1. Decide how each event would affect the parents' incentive to send a *son* to school. Would it increase, decrease, or have no effect on the decision?
2. Decide how each event would affect the parents' incentive to send a *daughter* to school. Would it increase, decrease, or have no effect on the decision?

Understanding Chart 6

1. Study Chart 6 on persistence in primary school, 1980–85. Persistence shows what percentage of the number of students who entered first grade in 1980 were in sixth grade in 1985. Answer these questions.

1. In which group of countries was the enrollment in sixth grade in 1985 the smallest share of first-grade enrollment in 1980? the largest share?
2. Do the data in Chart 6 support or refute this statement:

   The countries that most need to increase the education level of their population are the ones whose students tend to spend the least time in school.
3. Based on the knowledge you already have, why do you think students who enroll in primary school may not finish?

2. Assume that you are the Minister of Education in a developing country where the primary school persistence rate is 55 percent. Your goal is to improve the educational level of people in your country.

1. Here is a list of what many developing countries are trying to do to increase primary school persistence.
   - Increase awareness among parents and children of the importance of education.
   - Provide textbooks for each student.
   - Increase enrollment for girls.
   - Build more schools, especially in rural areas.
   - Train more and better teachers.
2. Decide what percentage of your annual budget you will spend on each type of activity. All activities are important, so you must spend at least 5 percent of your budget on each one.

Using the Data Table

Use the Comparative Data Table you began in the Using the Data Table section in the chapter on Life Expectancy.

1. In column 2 at the top of the table, write the heading "Primary school enrollment rate, 1985." Read the definition of primary school enrollment rate in Definitions and Notes.
2. Use the Data Table to find the primary school enrollment rate in 1985 for each country. Rank the countries with "1" equaling the highest school enrollment and "4" the lowest. Write the appropriate ranking number in the spaces in column 2.

   Make a general statement comparing the four countries.
3. Find each of the four countries on the map on pages 4–5 of *The Development Data Book*. Compare the color of each country with those of its neighbors. To what extent is each country typical of conditions in its area and region? Make a general statement comparing the four regions.
4. Save your Comparative Data Table for later use.

Thinking about What You Have Learned

1. Recall your own primary school years.

1. What skills did you acquire that might help you get a job or might help your country develop economically? [Students should consider attitudes, basic learning skills and social skills such as working with peer groups.]
2. What skills do you think a teenager might have who lives in a developing country but has not attended school? How might schooling add to or detract from those skills?

2. Assume you are in a position to increase primary school enrollment in developing countries, although your resources are limited. Consider the following courses of action and give reasons for following or not following them. If you choose to follow none of them, state a course of action you would follow.

1. Provide more resources to low-income developing countries where many countries have made progress but the need is still greatest.
2. Provide more resources to middle-income developing countries where most countries have already made much progress.
3. Divide resources evenly between low-income and middle-income developing countries.

Supplementary Activities

1.* Use a world outline map from the teaching guide and data from the Data Table to make a map showing the increase in primary school enrollment rates since 1965. Your map will show the number of percentage points the enrollment rate went up between 1965 and 1985.

1. Use the intervals below and make a key showing them.

   0–10 percentage points
   11–20 percentage points
   21–30 percentage points
   31 or more percentage points

   Mark the intervals by using colors ranging from light to dark, with the lightest for the first interval and the darkest for the fourth. Or use the following symbols: oooo for the first, xxxx for the second, shading for the third, and shading plus xxxx for the fourth.
2. Refer to the data in columns 5 and 6 in the Data Table to make your map.
3. Study the map you have made. Then rank the groups of countries listed below by the improvement in primary school enrollment rates since 1965 (1 = greatest improvement, 5 = least improvement): industrial countries; Central and South America and the Caribbean; southern Europe; the Middle East and North Africa; Sub-Saharan Africa; Asia and the Pacific.
4. In what way are industrial countries ahead of developing countries in primary school enrollment? In what way are developing countries ahead of industrial countries? [Most industrial countries have higher enrollment rates, but many developing countries have made more progress since 1965.]

2. Continue with the Comparative Data Table you began in supplemental activity 2 in the chapter on Life Expectancy.

1. In the columns across the top of the table, add these headings:
   - Primary school enrollment rate, 1985
   - Secondary school enrollment rate, 1985
2. Read in Definitions and Notes on page 16 about primary and secondary school enrollment rates. Then refer to columns 5 and 6 in the Data Table to complete your table.
3. In a few sentences, explain why school enrollment rates are different in industrial and developing countries.

*For highly motivated students and those with greater knowledge of statistics and developing countries.

Name _____

Date _____

Worksheet 2: Primary School Enrollment Rate

1. Define primary school enrollment rate.

2. What does the primary school enrollment rate tell you about a country? [The extent to which people are receiving a basic education in reading, writing, and mathematics.]

3. What region or regions of the world tend to have more countries with low primary school enrollment rates? with high enrollment rates? [Low: Africa. High: North and South America, Europe.]

4. Between 1965 and 1985, did primary school enrollment increase more in low-income or middle-income developing countries? [low income]

5. Compared with children in industrial countries, are children in developing countries more or less likely to go to primary school? [less likely]

6. Boys in developing countries are more likely than girls to
   a. enroll in primary school but less likely to enroll in secondary school.
   b. enroll in both primary and secondary school. [x]
   c. enroll in secondary school but less likely to enroll in primary school.

7. Between 1965 and 1985, the gap between enrollment rates for boys and girls in developing countries
   a. increased.
   b. decreased.
   c. stayed about the same. [x]

8. Studies show that when primary school enrollment increases
   a. both infant mortality rates and income increase.
   b. infant mortality rates decrease and income increases. [x]
   c. both infant mortality and income decrease.

9. In low-income developing countries the percentage of students that complete primary school is
   a. higher than in middle-income developing countries.
   b. lower than in middle-income developing countries. [x]
   c. the same as in middle-income developing countries.

10. In order to improve the quality of basic education, developing countries must
    a. increase the number of urban schools.
    b. give girls and children in rural areas more opportunity to go to school. [x]
    c. encourage parents to send their sons to primary school.

Population Growth Rate

Pages 6 and 7 in *The Development Data Book*

The population growth rate is the increase in a country's population during a period of time, usually one year, expressed as a percentage of the population at the start of that period. It reflects the number of births and deaths during the period and the number of people moving to and from a country.

- Population growth rates are much higher in developing countries than in industrial countries.
- Population growth rates are high in developing countries because birth rates have not fallen as rapidly as death rates.
- Birth rates have begun to fall because more parents have access to family planning, health care, education, and jobs.
- The average population growth rate for developing countries was lower in the 1970s and mid-1980s than in the 1960s, but annual increases in total population were larger—because the population base had become larger.
- There will be nearly 1⅓ billion more people in the world in 2000 than there are today (as population grows from 4.9 billion to 6.2 billion), and four out of five of these people will be in developing countries.
- Population growth in developing countries between now and the end of the century will make it more difficult to raise standards of living in those countries.
- Population pressure is greatest in urban areas, where the numbers of people continue to increase rapidly.

Understanding the Indicator

1. Calculate the annual population growth rate for countries A, B, and C using this formula:

Population increase in a year	÷	Population at the start of the year	×	100	=	Annual population growth rate (%)

Average annual population growth rates for a period of years provide a better picture than annual rates. For this reason, they are used in the map on pages 6 and 7 and in column 8 of the Data Table on page 12 in *The Development Data Book*. Calculating any growth rate for a period longer than a year requires more complicated mathematical formulas than the one used to calculate an annual rate.

	Population at the start of the year	Population at the end of the year	Population increase during the year	Annual population growth rate
Country A	22,000,000	22,400,000		
Country B	8,500,000	8,800,000		
Country C	400,000,000	410,000,000		

2. Population growth rates are small numbers, but they have large effects on the population of countries. To see what this means, do the following:

1. Refer to columns 7 and 8 of the Data Table. Find the population of Kenya in 1986 and the average annual population growth rate for 1980–86
2. Calculate the increase in population in Kenya by 1987, assuming that the population growth rate remained the same. Convert the percentage to a decimal and multiply; that is, 4.1 percent = 0.041
3. Calculate the increase in population by 1987 if the population growth rate were 1.1 percent.

3. If a population growth rate is low, population is growing slowly. If it is high, population is growing rapidly. To understand what "slow" and "rapid" mean, it helps to look at how long it will take different countries growing at different rates to *double* their population.

1. The number of years it takes a population to double can be estimated by dividing the number 70 by that population's growth rate. Calculate the doubling time of populations growing at the rates shown in the key to the map on pages 6 and 7.
2. Is 3 percent a rapid growth rate? Explain.
   Is 2 percent a rapid growth rate? Explain.
   Is 1 percent a rapid growth rate? Explain.
3. Refer to column 8 in the Data Table. Calculate the population doubling time for the following countries.
   - your country
   - Chile
   - Turkey
   - Tunisia
   - Zambia
   - Nepal

Interpreting the Map

1. Study the map on pages 6–7 and refer to the map key.

1. What color on the map represents countries with lower population growth rates? Where do these countries tend to be located?
2. What color represents countries with higher population growth rates? Where do these countries tend to be located?
3. Which continent is the lightest color? What assumptions might you make about living conditions there?

2. Name and locate on the map five countries with population growth rates of 3 percent or more, five with rates of 2 percent to 2.9 percent and five with rates of 1.9 percent or less.

3. In what region is the population growth rate 1 percent or less in all but two of the countries? Name the two countries.

Understanding Chart 7

1. Study Chart 7, which shows the population growth in developing and industrial countries during 1950–86. Then answer these questions.

1. Why have death rates declined in developing countries since 1950? What does the phrase "modern medical methods" mean?
2. Why do you think birth rates have declined more slowly than death rates?

3. Why do you think women with more formal education tend to have fewer children?

2. Use a Comparative Data Table to calculate birth rates, death rates, and population growth rates for four countries in 1986.

1. In the column at the left of the table, write the following countries: Canada, Argentina, Sierra Leone, China.
2. Write the following headings for the columns on the table (dates for all columns are 1986, except as noted):
   1. Population
   2. Births
   3. Birth rate
   4. Deaths
   5. Death rate
   6. Population growth rate
   7. Average annual population growth rate, 1980–86
3. Refer to column 7 of the Data Table. In column 1 on your table, write the population of the four countries. Convert the decimals in the Data Table into whole numbers in your table. That is, population in Canada is 25.6 million in the Data Table, so write 25,600,000 in your table.
4. Births and deaths in the four countries in 1986 were as follows. Write these amounts in columns 2 and 4 of your table.

	Births	*Deaths*
Canada	384,000	179,200
Argentina	529,000	279,000
Sierra Leone	182,400	91,200
China	20,026,000	7,378,000

5. Calculate birth rates, death rates, and population growth rates using the formulas below. Enter the amounts in columns 3, 5, and 6 of your table.

Number of births	÷	Population	×	100	=	Birth rate (%)

Number of deaths	÷	Population	×	100	=	Death rate (%)

Birth rate (%)	–	Death rate (%)	=	Population growth rate (%)

6. Refer to the Data Table. Write the average annual population growth rate, 1980–86, in column 7 of your table. Why do the rates in columns 6 and 7 of your table differ?

Understanding Chart 8

1. Examine Chart 8 about population size, average annual population growth, and average annual population increase for developing countries in 1965–86. Then complete the table below. (Divide the percentage by 100 to get a decimal, then multiply.)

	Population of developing countries	Average annual population growth rate	Population increase
Argentina 1976	25,700,000	1.6	
1986	31,000,000	1.6	
Kenya 1976	13,800,000	3.4	
1986	21,200,000	4.1	
Indonesia 1976	135,200,000	2.3	
1986	166,700,000	2.2	

1. Look at the numbers for Argentina. Although the population growth rate stayed the same from 1976 to 1986, the population increase was greater in 1986. Why?
2. What is the population situation in Kenya?
3. Look at the numbers for Indonesia. What has happened to the population growth rate and the population size? Why?

2. Do you agree or disagree with the following statement? Give reasons for your answer.

Population growth is not a problem in the developing countries because population growth rates are going down.

Understanding Chart 9

1. Study Chart 9, which shows the word population in 1986 and 2000. Add up the population figures for 1986 and for 2000. What is the total world population for each year? How much will total world population have increased by 2000? [1986: 4,900,000,000; 2000: 6,164,000,000; an increase of 1,264,000,000]

2. Use the data in Chart 9 to calculate the percentage of the world population that lived in developing, industrial, and other countries in 1986. [77%, 15%, 8%] Then make the same calculations using the estimates for the year 2000. [80%, 13%, 7%] Compare the percentages for each country group and write a sentence that describes the change between 1986 and 2000. [The proportion of people in developing countries increased and the proportion of people in industrial countries decreased.]

3.* Make a bar graph showing world population in 1986 and estimates of world population in 2000 for the six regions of the world shown in the Data Table. (See also supplementary activity 2, the last activity in this unit.)

1. On the vertical axis of the graph, write the regions, leaving enough space between them for two bars (one for 1986 data and one for 2000 data). Leave extra space at the bottom to add two bars if you will be doing supplemental activity 2.
2. On the horizontal axis of the graph, mark off spaces for 0, 0.5 billion, 1.0 billion, and so forth, up to 3.5 billion.
3. Make a key for the graph to show different colors or line patterns for 1986 data and 2000 data.
4. Refer to columns 7 and 9 in the Data Table; make a table showing the *total* populations of each region in 1986 and in 2000. Round to the nearest million, then move the decimal three places to the left to express your answer in billions. Plot the data on the bar graph.
5. Write a sentence summarizing the information on the graph.

*For highly motivated students and those with greater knowledge of statistics and developing countries.

4. Here is a list of cities with populations of more than 10 million in 1950, 1975, and projected to 2000. Name the country in which each city is located, and find each country on the map. In 2000 how many of these cities will be located in Central and South America? in Sub-Saharan Africa? in Asia and the Pacific? in the Middle East and North Africa? in Europe? in North America? [6, 0, 12, 4, 1, 2]

	Population (millions)
1950	
New York and northeast New Jersey	12.2
London	10.4
1975	
New York and northeast New Jersey	19.8
Tokyo and Yokohama	17.7
Mexico City	11.9
Shanghai	11.6
Los Angeles and Long Beach	10.8
São Paulo	10.7
London	10.4
2000	
Mexico City	31.0
São Paulo	25.8
Tokyo and Yokohama	24.2
New York and northeast New Jersey	22.8
Shanghai	22.7
Beijing	19.9
Rio de Janeiro	19.0
Greater Bombay	17.1
Calcutta	16.7
Jakarta	16.6
Los Angeles and Long Beach	14.2
Seoul	14.2
Cairo, Giza, and Imbaba	13.1
Madras	12.9
Manila	12.3
Greater Buenos Aires	12.1
Bangkok and Thonburi	11.9
Karachi	11.8
Bogotá	11.7
Delhi	11.7
Paris	11.3
Tehran	11.3
Istanbul	11.2
Baghdad	11.1
Osaka and Kobe	11.1

5. Answer these questions.

1. What problems does rapid population growth cause in developing countries?

2. What can these countries do to slow population growth?

3. Why might a developing country *not* want to slow population growth?

Using the Data Table

1. Use the Comparative Data Table you developed in the Using the Data Table sections in the chapters on Life Expectancy and Primary School Enrollment.

1. In column 3 at the top of the table, write the heading "Average Annual Population Growth Rate, 1980–86." Read the definition of population growth rate in Definitions and Notes.
2. Use the Data Table to find the average annual population growth rate for each country during 1980–86. Rank the countries with "1" equaling the lowest population growth rate and "4" the highest. Write the appropriate ranking number in the spaces in column 3.

   Make a general statement comparing the four countries.
3. Find each of the four countries on the map on pages 6–7 of *The Development Data Book*. Compare the color of each country with those of its neighbors. To what extent is each country typical of conditions in its area and region? Make a general statement comparing the four regions.
4. Your Comparative Data Table is now complete. Study your table and make a general statement comparing the four countries with their three indicators.

2. Using the Data Table, do the following.

1. List the twenty-one developing countries with population growth rates of 1.9 percent or less.

2. Find each country on the map. How many of the countries are in the Caribbean, Central or South America? in Sub-Saharan Africa? in Asia and the Pacific? in the Middle East and North Africa? in Europe?

Thinking about What You Have Learned

1. The conditions listed below apply to many people living in developing countries. Consider each condition. If you lived in a developing country and the condition applied to you, would it make you want many children or only a few? Why?

- You are very poor. You have five brothers and six sisters.
- You have gone through secondary school; so have most of the boys and girls you know.
- Your grandparents had fourteen children; seven lived to be adults. You have five brothers and sisters; four other siblings died.
- The adults around you who have many children are more respected than those who have only a few.
- You have heard radio programs sponsored by your government telling parents that if they have fewer children, they can offer those children more opportunities.
- In your society, elderly people who are too old to work are cared for by their adult children.

2. Assume that you are the prime minister of a developing country in which the population growth rate is 3 percent a year. Your government has adopted a policy of reducing the rate to 2 percent by the end of the century.

Listed below are some activities that will help your country reach that goal. You cannot undertake all the activities at once. Choose the *five* that you will undertake first and explain why.

- Start a campaign of billboards, radio announcements, and newspaper ads that portray small families as desirable.
- Give a speech on your country's Independence Day stating that your country will be better off if population growth slows down.
- Have the Ministry of Health train more people to provide family planning services in rural health clinics and urban hospitals.
- Persuade schools that train doctors, nurses, and paraprofessionals to teach their students how to provide family planning services.
- Ask national heroes in sports and entertainment to support family planning.
- Have the Ministry of Education develop a curriculum for secondary schools about population.
- Encourage parents to send their daughters to school.
- Have the national university do research to determine how to persuade more couples to practice family planning.
- Enact a law that will raise the taxes of couples who have more than three children.
- Have the Department of Industries develop job training programs for women.
- Set up a medical care plan for the elderly.

Supplementary Activities

1. This activity demonstrates how much family size can influence a country's population.

1. Four members of the class are to be two couples. Couple A and their descendants will always have two surviving children; Couple B and their descendants will always have three.
2. Couple A is to select two members of the class as their children; Couple B is to select three members of the class as their children.
3. The children of Couples A and B are to select members of the class as their spouses. The children of Couple A and their spouses are Couples C and D; the children of Couple B and their spouses are Couples E, F, and G.
4. Couples C and D are each to select two members of the class as their children. Couples E, F, and G are each to select three members of the class as their children. How many children altogether do Couples C and D have? Couples E, F, and G?
5. Continue the activity through another generation (the fourth); members of the class already selected will have to be selected again. At the end of the generation, there will be 8 children who are descendants of Couple A and 27 who are descendants of Couple B.
6. What conclusions can you draw from this exercise?

2. This activity is for students who have done activity 3 for Chart 9 in this unit. The chart created in that activity shows that Asia is by far the most populous region in the world. Two countries in that region, China and India, together accounted for almost 40 percent of the world's population in 1986.

1. Add the populations of China and India for 1986 and then add their projected populations for 2000. Draw two more bars to the graph you made in activity 2 that show the combined populations of China and India in 1986 and 2000. Label the new bars "China and India." Compare the data for China and India to those for all of Asia and the Pacific and to those for the other regions of the world.
2. As listed in column 8 of the Data Table, the average annual population growth rate for China in 1980–86 was 1.2 percent. The rate for the 1970s was 1.5 percent, significantly lower than the rate for the 1960s which was 2.3 percent. Find information about the steps China is taking to reduce population growth. Write a brief description of these steps.

Name _____

Date _____

Worksheet 3: Population Growth Rate

1. Define population growth rate.

2. Do population growth rates tend to be lower in industrial or developing countries? [industrial countries]

3. If the average population growth rate for developing countries was lower in the 1970s than in the 1960s, why were more people added to the population each year? [because the population base was bigger]

4. Why is rapid population growth a problem for developing countries? [because it increases the demand for jobs, food, and housing and for medical, educational, and other social services]

5. What are two things a country can do to help encourage people to have smaller families? [provide family planning services; encourage parents to send their daughters to school; improve the status of women; provide more health and social services]

6. If the death rate is decreasing faster than the birth rate, population will
   a. increase. [x]
   b. decrease.
   c. stay the same.

7. In the 1950s and 1960s, death rates in developing countries declined thanks mainly to the spread of modern methods of
   a. family planning.
   b. medicine. [x]
   c. education.

8. In the year 2000, four out of five people will be in
   a. industrial countries.
   b. developing countries. [x]
   c. high-income oil-exporting countries.

9. Population growth rates tend to be
   a. high in countries with low birth rates.
   b. low in countries with low death rates.
   c. high in countries with high birth rates. [x]

10. What region of the world has the most countries with high population growth rates? What region has the most countries with low population growth rates?
    a. Highest—Asia; lowest—North America.
    b. Highest—Sub-Saharan Africa; lowest—Europe. [x]
    c. Highest—Europe; lowest—Asia.

GNP per Capita

Pages 8 and 9 in *The Development Data Book*

Gross national product (GNP) per capita is the dollar value of a country's final output of goods and services in a year divided by its population. It reflects the value of a country's economic activity and the income of its residents.

- GNP per capita is much lower in developing countries than in industrial countries.
- Developing countries produce only a fifth as many goods and services as industrial countries but have five times as many people.
- Between 1965 and 1980 GNP per capita grew a little faster in developing countries than in industrial countries.
- Between 1980 and 1986 growth of GNP per capita slowed in both industrial countries and developing countries.
- Throughout 1965–86 both population and GNP grew much faster in developing countries than in industrial countries.
- Half the world's population lives in low-income developing countries, where the average GNP per capita is $270.

Understanding the Indicator

1. Read in Definitions and Notes about GNP (gross national product). The items listed below would be included in calculating a country's GNP. Which items are goods? Which are services?

- food
- lumber
- a house
- teachers' salaries
- nuclear-powered submarines
- lawyers' fees
- an electric power station
- government-sponsored research
- home computers
- haircuts
- life insurance

2. Calculate GNP per capita for countries A, B, and C, using this formula:

GNP	÷	Population	=	GNP per capita

	GNP	Population	GNP per capita
Country A	$16,512,000,000	103,200,000	[illegible]
Country B	$316,200,000,000	1,054,000,000	[illegible]
Country C	$1,560,060,000,000	121,500,000	[illegible]

The countries in the table are in Asia and the Pacific. Refer to column 11 in the Data Table on page 12 of *The Development Data Book* and identify the countries. [Bangladesh, China, Japan]

Interpreting the Map

1. In *The Development Data Book* countries are grouped both by geographic region and by economic group (based on GNP per capita). Read in Definitions and Notes about the different economic groups (low-income developing countries, middle-income developing countries, industrial countries, and high-income oil-exporting countries) and study the map and key on pages 8 and 9. Then answer the following questions.

1. According to the map key, what is the highest GNP per capita a country can have to be included among the low-income developing countries? Name four low-income developing countries in Sub-Saharan Africa and four in Asia and the Pacific.
2. Because their range of GNP per capita is so great, middle-income developing countries are divided into two subgroups. What are the names of the subgroups?
3. Name four lower middle-income countries in each of these regions:
   - South America
   - The Middle East and North Africa
   - Sub-Saharan Africa
   - Asia and the Pacific.

   Name two upper middle-income countries in each region except Sub-Saharan Africa.
4. Name two industrial countries in North America, four in Europe, and three in Asia and the Pacific.
5. Name four countries shown on the map as high-income oil exporters. Use the Data Table to find the following indicators for these countries: GNP per capita, life expectancy, primary school enrollment, and population growth rate. How are these countries like developing countries? How are they like industrial countries? Why are these countries not included among industrial or developing countries?

2. Compare GNP per capita in developing and industrial countries.

1. Study the map and select four countries—your own, one industrial country, one low-income developing country, and one middle-income developing country.
2. Refer to column 11 in the Data Table and find the GNP per capita in 1986 for each country you selected.
3. How many times larger is GNP per capita in the industrial country than in the two developing countries? (Divide GNP per capita in the industrial country by GNP per capita in each of the developing countries.)
4. How many times larger or smaller is the GNP per capita in your country than that in the middle-income developing country?

Understanding Chart 10

1. Study Chart 10, which shows GNP, population, and GNP per capita for industrial and developing countries, and write one or two sentences to summarize the information in the chart about the production of goods and services.

2. If a country slows down its population growth rate, is its GNP per capita likely to increase or decrease? Explain your answer.

3. Listed below are some activities that would help increase economic growth in a low-income developing country. Assume that you are one of the following:

- an official of the government's Ministry of Planning
- a wealthy citizen who wants to invest his or her money in order to earn more money
- an executive in a private foundation in an industrial country.

(Short version) In the role you have selected, list the activities in the order in which you would undertake them. Disregard the cost of the activities. Explain the order of your list.

(Long version) In the role you have selected, assume that you have $3,000,000 to spend in the coming year. What combination of activities would you finance? Explain your choices.

1. Build primary schools for 200 students in 50 villages. (Cost: $2,000,000)
2. Resurface and broaden a highway carrying lumber from a forest to a seaport from which the lumber can be exported. (Cost: $2,000,000)
3. Build, furnish, and equip four-room health centers to provide basic health care in 30 villages. (Cost: $2,000,000)
4. Install systems to bring water into 200 villages. (Cost: $1,000,000)
5. Make funds available to banks so they can make loans of $2,000 with low interest charges to 500 farmers. (Cost: $1,000,000)
6. Build a small factory to make bicycles in the capital city; develop a program to train slum dwellers as workers. (Cost: $1,000,000)
7. Equip 20 minibuses to provide health care and family planning services in remote villages; train and pay salaries of workers on the buses. (Cost: $500,000)
8. Train 100 high school graduates to teach in village schools and run adult literacy programs. (Cost: $300,000)
9. Train 50 village field workers and pay their salaries for a year; each will teach 100 farmers to use a new kind of seed that will increase production. (Cost: $250,000)
10. Make a preliminary survey of energy resources as a first step to reduce oil imports. (Cost: $100,000)

Understanding Chart 11

1. Study Chart 11, which shows the growth of GNP per capita, population, and GNP in 1965–80 and 1980–86. Annual growth rates for GNP per capita are calculated the same way as annual population growth rates. Calculate the GNP per capita growth rate for countries A, B, C, and D, using the formula at the top of the next column, and write your answers in the table that follows.

Change in GNP per capita in a year	÷	GNP per capita at the start of the year	×	100	=	Annual GNP per capita growth rate (%)

	GNP per capita at the start of the year	GNP per capita at the end of the year	Change in GNP per capita during the year	Annual GNP per capita growth rate
Country A	$113	$110		
Country B	$840	$860		
Country C	$1,220	$1,260		
Country D	$1,590	$1,700		

Average annual growth rates of GNP per capita for a period of years provide a better picture than rates for a single year; they are shown in column 12 of the Data Table. Calculating any growth rate for a period longer than a year requires more complicated mathematical formulas than the one used to calculate an annual rate.

2. Using the data for 1980–86 in Chart 11, complete the table as nearly as you can:

	GNP per capita growth rate	GNP growth rate	Population growth rate
All developing countries			
Low-income	2.3%	5.1%	1.9%
Middle-income	1.1%	2.3%	2.3%
Developed countries			

1. Study Chart 11 and the table. Compare the low-income developing, middle-income developing, and industrial countries.
   - In which group is GNP per capita growing most rapidly? most slowly?
   - In which group is GNP growing most rapidly? most slowly?
   - In which group is population growing most rapidly? most slowly?
2. Do you agree with the following statement? Why or why not?

   Raising standards of living in developing countries depends on one thing only: reducing population growth.

Understanding Chart 12

1. Complete the table showing the data in Chart 12 on the distribution of world population by GNP per capita in 1986.

	Share of world population	Average GNP per capita
Low-income developing countries	[51%]	[$270]
Middle-income developing countries	[27%]	[$1,270]
Industrial countries	[14%]	[$12,960]

Note: The category "other" accounts for 8 percent.

2. How many times greater is the average GNP per capita of industrial countries than that of low-income developing countries? [$12,960 ÷ $270 = 48 times]

Using the Data Table

Refer to column 12 in the Data Table to answer the following questions.

1. In how many countries was the average annual GNP per capita growth rate in 1965–86:
   - less than 1.0 percent? [31]
   - 1.0 percent to less than 2.5 percent? [30]
   - 2.5 percent to less than 4.0 percent? [29]
   - 4.0 percent or more? [15]
2. List the countries in which GNP per capita has declined since 1965; that is, those countries with growth rates of less than zero. [19]
3. List the 20 countries with the highest GNP growth rate. Are there any industrial countries in the group? [Botswana, Brazil, Cameroon, China, Hong Kong, Hungary, Indonesia, Japan, Jordan, Republic of Korea, Lesotho, Malaysia, Oman, Saudi Arabia, Singapore, Syrian Arab Republic, Thailand, Tunisia, Yemen Arab Republic, Yugoslavia. Yes, Japan.]

Thinking about What You Have Learned

[The blank Comparative Data Table in the back of this teaching guide may be copied for classroom use.]

1. Is there a correlation between GNP per capita and other indicators? To answer this question, use a Comparative Data Table to compare the indicators.

1. Select one country from each of the first four groups of countries shown in the map key on pages 8 and 9. Select countries from different regions of the world. Write the names of the countries in the column at the left of the table. Add the name of your country.
2. Write the following headings for the columns:
   - GNP per capita, 1986
   - Life expectancy at birth, 1986
   - Primary school enrollment, 1985
   - Population growth rate, 1980–86
3. Refer to the Data Table and fill in the columns of your table. If data for one of the indicators are not available, select another country from the same income group and region.
4. Study your table and answer the following questions.
   - In the low-income country, where GNP per capita is lowest, are the other indicators high or low?
   - In the middle-income countries, are the other indicators higher or lower than in the low-income country?
   - In the industrial country, where GNP per capita is highest, are other indicators higher or lower than in the developing countries?
   - Why is GNP per capita a good general indicator of the standard of living of a country? What aspects of a country's standard of living are not measured by GNP per capita? [It indicates the general wealth of a country. It does not indicate whether wealth is distributed fairly or whether people lead fulfilling lives.]

2. The table below gives estimates of the dollar value of total goods and services (GNP) produced in developing and industrial countries in 1986.

	Total goods and services	Population
Developing countries	$2,294,500,000,000	
Industrial countries	$9,611,150,000,000	

1. Complete the table above, using population data for 1986 from Chart 9 on page 7.
2. Make two pie charts, one showing goods and services produced in both groups of countries, and one showing population in both groups of countries.
3. Divide the class into two groups representing industrial and developing countries. One group should be one-fifth of the class, the other four-fifths. Distribute 25 pieces of paper, cookies, or candy bars: 20 to the group with one-fifth of the class and five to the group with four-fifths of the class.
4. Discuss this statement from the perspective of a person in a developing country and a person in an industrial country:

   About one-fifth of the world's people have about four-fifths of the world's goods and services; the remaining four-fifths have only about one-fifth of the world's goods and services.

Supplementary Activities

1. Many important changes accompany economic development in a country. One is that the percentage of workers employed in agriculture goes down. Refer to column 13 in the Data Table and to the note on the labor force in agriculture in Definitions and Notes.

1. The percentage of the labor force employed in agriculture went down in developing countries in the last 20 years. What do you think might explain that change?
2. Study the data for 1980 in column 13 of the Data Table. In how many countries was the percentage of the labor force in agriculture:
   - Less than 25 percent?
   - 25 percent to 50 percent?
   - 51 percent to 75 percent?
   - 76 percent or more?
3. What percentage of the labor force was in agriculture in the following countries in 1980?
   - United Kingdom
   - United States
   - Mali
   - Nepal
4. Each group is given a transparency and a marker and is to show on its transparency the countries in one of the percentage groups in step 2 above. The lightest color should be used for countries with 76 percent or more of their labor force in agriculture, the darkest for countries with less than 25 percent in agriculture. When the transparencies are completed, the teacher is to assemble them on an overhead projector.
5. Compare the projected map with the map of GNP per capita on pages 8 and 9 of *The Development Data Book*. What correlation do you see between GNP per capita and the percentage of the labor force in agriculture?

2. An important change that accompanies economic development is that more energy is consumed. Refer to column 14 in the Data Table and read the note in Definitions and Notes about energy consumption per capita.

1. Energy consumption per capita increased in most developing countries in the past 20 years. What do you think might explain that increase?

2. Study column 14 in the Data Table. In how many countries in 1986 was energy consumption per capita the equivalent of:
   - Less than 500 kilograms of oil
   - 500 kilograms to less than 1,000 kilograms of oil
   - 1,000 kilograms to less than 3,000 kilograms of oil
   - 3,000 kilograms of oil or more

3. What was the energy consumption per capita in the following countries in 1986?
   - United Kingdom
   - United States
   - Mali
   - Nepal

4. Repeat step 4 in the preceding activity. The lightest color should be used for countries with energy consumption per capita the equivalent of less than 500 kilograms of oil, the darkest color for countries with consumption of 3,000 kilograms of oil or more.

5. Compare the projected map with the map of GNP per capita on pages 8 and 9 of *The Development Data Book*. What correlation do you see between GNP per capita and energy consumption per capita?

Name _____

Date _____

Worksheet 4: GNP per Capita

1. Define GNP per capita.

2. Calculate the GNP per capita for Kenya in 1986, when it had a gross national product of $6,360,000,000 and a population of 21,200,000.

3. Why is GNP per capita a good indicator of a country's development?

4. What are two aspects of the quality of life in a country that are *not* measured by GNP per capita?

5. What are two examples of things people need to help them be more productive in their work?

6. GNP per capita in developing countries is
   a. higher than in industrial countries.
   b. lower than in industrial countries.
   c. about the same as in industrial countries.

7. A low-income developing country is most likely to have a GNP per capita of
   a. $2,500.
   b. $250.
   c. $25.

8. Between 1965 and 1986 population and GNP both
   a. grew faster in industrial countries than in developing countries.
   b. grew faster in developing countries than in industrial countries.
   c. grew at about the same rate in both developing and industrial countries.

9. Approximately what percentage of the world's population lives in low-income developing countries?
   a. 25 percent.
   b. 50 percent.
   c. 75 percent.

10. Which one of the regions listed below contains countries in which GNP per capita has managed to grow significantly despite a slowing down of the world economy?
    a. Sub-Saharan Africa.
    b. Asia.
    c. South America.

Merchandise Exports

Pages 10 and 11 in *The Development Data Book*

Merchandise exports are the goods a country produces and sells to other countries; they account for most of a country's exports. The money a country earns from these exports helps determine how much it can afford to spend on imports and how much it can borrow abroad.

- The value of merchandise exports from industrial countries is much greater than the value of those from developing countries.
- Almost all countries are selling more exports than ever before.
- Manufactured goods, rather than primary goods, make up more of the exports of developing countries than ever before.
- Developing countries pay for imports mainly by selling exports to industrial countries.
- Usually a country's pattern of exports—what goods and services are sold outside the country—is based on its comparative advantage, that is, the resources it has that other countries may lack.
- In the 1960s and 1970s developing countries were able to import more goods and services than they exported because they borrowed money from commercial banks and other institutions.
- In the 1980s many developing countries are exporting more but importing less because they must use export earnings to repay their loans. Consequently, their economic development has slowed down.

The dollar is one of several economically strong currencies that are used as foreign exchange in international trade. These foreign exchange currencies are accepted in almost all countries as a way of paying for imported goods and services. For developing countries to earn the foreign exchange they must have in order to pay for the imports they need to develop their economies, they must export their own goods and services as much as possible.

Exports represent only part of all the goods and services produced within a country. Many more goods and services are produced and consumed by the people within the country itself. The sum of *all* these goods and services is measured by a country's gross national product (GNP). (See chapter 4 on page 8.)

Understanding the Indicator

1. Merchandise (or goods) exports account for most of a country's trade. Service exports, such as tourism, account for a much smaller portion, although it is growing in some countries. Discuss the following questions.

1. What are exports?
2. What are imports?
3. Why do countries trade?
4. What makes trade between countries more complicated than trade within a country?

5. What happens to trade if the world economy slows down?

2. Study the diagram in the color band at the top of page 11. Then fill in the blanks in the following paragraph.

A country sells some of what it produces to other countries; these are its _____. In return, it receives money from the other countries. It uses some of this money to pay for things it buys from other countries; these are its _____.

3. The following are included in a country's *total* exports, but they are not merchandise exports. What are they?

- A shipping company transports goods for people in other countries.
- One of the country's airlines carries foreign passengers to and from their countries.
- Civil engineers go to a neighboring country to help build a new road.

4. Countries pay for their imports mostly with the money they make from exports. Sometimes countries import more than they export, and they pay most of the difference by borrowing. With these facts in mind, answer the following questions.

1. If Country A exports 100 metric tons of coffee to Country B for a profit of $2,000 a ton, how much can it spend on imports?
2. If Country A uses all the money it earns by exporting coffee to buy 20 trucks from Country B at $15,000 each, how much must it borrow to pay for the trucks?
3. To which of the following countries would a commercial bank be more likely to make new loans? Why?
   - Country C regularly exports 500 metric tons of tea. The unit price per ton for this product went from $2,000 last year to $2,500 this year.
   - Country D exported 750 metric tons of cacao last year and 900 metric tons this year. The unit price per ton for this product went from $2,000 last year to $1,500 this year.
4. How do a country's exports influence how much it can import and borrow from abroad?

Interpreting the Map

1. Study the map and color key for merchandise exports. Then answer the following questions:

1. What color on the map represents countries with a higher value of merchandise exports? Where do these countries tend to be located?
2. What color on the map represents countries with a lower value of merchandise exports? Where do these countries tend to be located?

2. Use the map to answer the following questions. For each country you select, use the Data Table on page 12 to tell whether the country is a low-income or middle-income developing country or an industrial country.

1. What are two countries in North and Central America and the Caribbean where the value of merchandise exports is $30 billion or more?
2. What are three countries in Asia and the Pacific where the value of merchandise exports is between $15 billion and $30 billion?
3. What are three countries in South America where the value of merchandise exports is between $1 billion and $15 billion?
4. What are three countries in Sub-Saharan Africa where the value of merchandise exports is less than $1 billion?

Understanding Chart 13

1. Study Chart 13, which shows the value of exports from developing and industrial countries in 1960, 1981, and 1986. Then read the text around the chart and answer these questions.

1. What happened to the value of merchandise exports in developing and industrial countries from 1960 to 1986?
2. In which group of countries did it increase the most?
3. How many times greater was the value of merchandise exports in 1981 than in 1960 and in 1986 than in 1981—
   - in developing countries?
   - in industrial countries?

2. Based on your answers in activity 1 above, which group of countries—developing or industrial—could afford to buy more imports in 1986 than in 1981?

3. How can increased exports help increase GNP per capita in developing countries?

4. Listed below are some activities that would help to increase economic growth in a low-income developing country. Consider each activity. Would it require imports? If so, list them.

1. Build ten primary schools, eight in the countryside and two in the capital city.
2. Set up a small shoe factory in the country's largest city and develop a program to train slum dwellers to work in the factory.
3. Resurface and broaden a highway used to carry coffee beans, cacao, and other agricultural products from farms to a seaport from which they can be exported.
4. Build a dam on the country's largest river to increase production of energy and reduce oil imports.
5. Make funds available to banks so they can make small loans with low interest charges to farmers.
6. Equip minibuses with health care equipment and train people as workers on the buses.

Understanding Chart 14

1. Study Chart 14 about the changing structure of merchandise exports of developing countries in 1965 and 1986, and read the text around it. Then answer these questions.

1. Listed below are different goods a country might export. Which ones are primary products and which are manufactured products?
   - wheat
   - bicycles
   - lumber
   - iron ore
   - tractors
   - shoes
   - oil
   - radios
   - uranium
   - diamonds
2. What happened to the proportion of manufactured goods in the exports of developing countries, compared with the proportion of primary goods, between 1965 and 1986?
3. What does this change in the structure of exports tell you about developing countries?
4. Is this statement true or false? Primary goods are generally cheaper to produce but sell for a lower price than manufactured goods.
5. Do industrial countries export agricultural and other primary products? Support your answer.

2. Read the text again and answer these questions.

1. What is comparative advantage?

2. How does a country's comparative advantage help producers decide what proportion of their exports will be primary goods and what proportion will be manufactured goods?

3. Assume a country has the resources listed in column 1. Match these resources with the merchandise exports in column 2 to show how producers in the country might take advantage of their comparative advantage.

Resources	*Merchandise exports*
iron ore deposits	wheat
cheap labor	steel
rich farmland	inexpensive shoes

Understanding Chart 15

1. Study Chart 15 showing the flow of money into and out of developing countries in the 1960s and 1980s. Notice that, as in bookkeeping, the value of a country's imports and exports must balance. Read the text around the chart; then answer these questions.

1. What are the two principal ways money flows into a developing country?
2. What are the two principal ways money flows out of a developing country?
3. Has the share of income from exports increased or decreased in developing countries since the 1960s?
4. Has the share of money spent to repay loans increased or decreased in developing countries since the 1960s?
5. If developing countries are earning more money than ever before from their exports, why do they have less money to spend on imports?

2.* The data in the following table show where the money for foreign trade came from and how it was spent in Brazil in 1975 and 1986. The expression (1986 U.S. dollars) means that all data are expressed in amounts based on the purchasing power of the U.S. dollar in 1986, so they are comparable.

Where the money came from, Brazil, 1975 and 1986
(1986 U.S. dollars)

	1975	1986
Receipts from exports[a]	$10,000,000,000	$26,300,000,000
New loans[b]	11,000,000,000	5,700,000,000
Other receipts[c]	300,000,000	9,900,000,000
Total receipts		

How the money was spent, Brazil, 1975 and 1986
(1986 U.S. dollars)

	1975	1986
Payments for imports	$17,000,000,000	$30,200,000,000
Payments on earlier loans[d]	4,300,000,000	10,700,000,000
Other payments[e]	0	0
Total payments		

a. Amounts for exports differ from those in the Data Table because the totals here include services.
b. Brazil's loans were mainly from commercial banks.
c. Receipts from other sources include salaries earned by Brazilians working outside the country and money received by plants in Brazil set up by foreign companies.
d. Includes principal and interest.
e. Other payments include money Brazilians invest overseas.

1. Calculate total receipts and payments for Brazil in 1975 and 1986. How many times greater were the amounts in 1986 than in 1975?
2. What percentage of Brazil's total income came from exports in 1975? in 1986? (Divide exports by total income. Convert the decimal to a percentage by multiplying by 100; round to the nearest percentage.)
3. What percentage of Brazil's total payments went to repay earlier loans in 1975? in 1986?
4. Was Brazil better able to speed up economic development by importing goods and services in 1975 or 1986? Why?

*For highly motivated students and those with an interest in statistics and developing countries.

3. The table below shows the amounts of principal and interest Brazil and Malawi paid back on earlier loans in 1970, 1981, and 1986 and total payments for the same years.

Principal and interest paid by Brazil and Malawi, 1970, 1981, and 1986 (U.S. dollars)

	Payments on earlier loans (1)	Total payments (2)	(1) as a % of (2)
Brazil			
1970	$1,761,000,000	$12,748,000,000	
1981	15,287,000,000	54,242,000,000	
1986	10,581,000,000	40,811,000,000	
Malawi			
1970	$16,000,000	$354,000,000	
1981	89,000,000	572,000,000	
1986	108,000,000	975,000,000	

1. Calculate the percentage of the total payments of each country that went for payments on earlier loans in 1970, 1981, and 1986. (Divide payments on earlier loans by total payments; convert the decimal to a percentage by multiplying by 100; round to the nearest percentage.) Write your answers in the table.
2. What happened to that percentage between 1970 and 1986 in both countries?
3. Look again at the part of Chart 15 that shows how the money for foreign trade is spent. If more of the money goes for payments on earlier loans, what happens to the amount that can be spent on imports?
4. Based on the information above, which of the two countries is more likely to be able to afford to improve the living conditions of its people?

Using the Data Table

1. The data in the following table will show how the value of merchandise exports can vary between low-income and middle-income developing countries.

Value of merchandise exports

	Low-income countries	Middle-income countries
Less than $1 billion		
$1 billion-$15 billion		
$15 billion-$30 billion		
More than $30 billion		
Data not available		

1. Look at column 15 in the Data Table and the symbols in the table that indicate the income group each country belongs to. Add up the total number of countries that fit into each category in the table above.
2. Make a general statement that compares the value of merchandise exports of low-income developing countries with that of middle-income developing countries.

2. Read in Definitions and Notes about external public debt and external public debt as a percentage of GNP. Now refer to column 16 in the Data Table and do the following.

1. Between 1970 and 1986, did any countries show a decrease in their public debt as a percentage of their GNP? If so, which ones?
2. In 1986, which country in each of the six geographical regions had the highest debt as a percentage of GNP?
3. How many times worse was the debt situation in these countries in 1986 compared with 1970? (Divide the 1986 number by the 1970 number and round off.)
4. What effect do you think this worsening of the debt situation might have on a developing country?

*For highly motivated students and those with a special interest in statistics and developing countries.

Thinking about What You Have Learned

1. Industrial countries rely on people in developing countries to buy many of their exports. When developing countries cannot afford to import goods, people in industrial countries lose income and sometimes even jobs.

1. The table at the bottom of this page shows what percentage of manufactured goods from four industrial countries is purchased by people in developing countries. What is the dollar value of these exports to developing countries? (Divide the percentage by 100 to get a decimal, then multiply by the total value of manufactured exports.)
2. Which of the four countries sells the largest percentage of its manufactured exports to developing countries? [Australia]
3. Assume that the countries in the table (a) increased their exports to developing countries, and (b) exported the same amount or increased their exports to their other trading partners. What would be the effect on employment and on the production of goods and services in the countries in the table? [Both would increase.]
4. What would be the effect on developing countries if the industrial countries with whom they trade—
   - limited the number of imports from developing countries that could come into the country? (This is called putting a quota on imports.)
   - added a tax (or tariff) to these imports so that they were more expensive to buy?
   - bought more of these imports?

   [Quotas and tariffs would reduce the amount of goods from developing countries and thus developing countries would lose income. Income from more would increase the income for developing countries and thus help their developing economies.]
5. What would be the effect on the industrial countries in the table if developing countries could not afford to buy manufactured exports? [Income and jobs in industrial countries would decrease.]

2. Because of economic events in the late 1970s and early 1980s, the debt of the developing countries has increased. It is much larger in some developing countries than in others, but it is larger in all but a few of them than it was in 1970. To understand that debt and what must be done to deal with it, study the table below and answer the questions.

Debt in Developing Countries
(1986 U.S. dollars)

	1970	1986
Debt	$180,400,000,000	$870,700,000,000
Receipts from exports	178,600,000,000	450,200,000,000
Payments on earlier loans		
Principal	(17,400,000,000)	(60,800,000,000)
Interest	(7,000,000,000)	(55,600,000,000)
Total	[$24,400,000,000]	[$116,400,000,000]

1. Compare the 1986 amounts for debt and exports with the 1970 amount.
   - How many times greater was debt in 1986 than in 1970? [4.8 times]
   - How many times greater were exports in 1986 than in 1970? [2.5 times]
   - Would you say that exports kept up with debt from 1970 to 1986? Why is this important? [Not because in those days developing countries were more in debt and had less money with which to pay their loans and interest on them. They would be helped to develop.]
2. Compare total payments on earlier loans in 1970 with those in 1986.
   - Calculate total payments in each year by adding principal and interest.
   - How many times greater were total payments in 1986 than 1970? [4.8]
   - What effect did increased payments on earlier loans have on the ability of developing countries to import? [The amount of money available for imports was reduced.]

	Total value of manufactured exports, 1986	Percentage of manufactured exports to developing countries	Value of manufactured exports to developing countries
Australia	$ 4,977,000,000	51	[$ 2,538,000,000]
Canada	$ 57,724,000,000	6	[$ 3,463,000,000]
United Kingdom	$ 81,266,000,000	22	[$17,879,000,000]
United States	$165,153,000,000	35	[$57,804,000,000]

3. Compare the percentages of total payments on earlier loans that went for principal and interest in 1970 with those in 1986.
   - What percentage of payments went for principal in each year? for interest in each year?
   - What effect would increased interest rates have on economic development?

4. What is the effect on the debt of the developing countries if the growth of world trade slows down? speeds up?

Supplemental Activities

1. Use the data in the table below to make line graphs showing the exports and imports in Brazil and Malawi in 1978–86. Make one graph for each country. For both countries mark the years on the horizontal scale. For Brazil, make a vertical scale in which each interval is $2 billion, starting with $16 billion, then $18 billion, and so forth to $42 billion. For Malawi, make a vertical scale in which each interval is $50 million, starting with $200 million, then $250 million, and so forth to $600 million. Show exports as a solid line and imports as a line of dashes.

Exports and Imports, Brazil and Malawi, 1978–86
(millions of 1986 U.S. dollars)

	Brazil		Malawi	
	Exports[a]	Imports	Exports[a]	Imports
1978	$17,350	$25,873	$284	$491
1979	19,434	30,755	296	569
1980	23,275	36,250	334	608
1981	26,923	38,873	330	485
1982	23,469	39,773	268	412
1983	24,341	31,286	255	412
1984	30,205	30,334	341	366
1985	29,309	29,737	282	388
1986	25,300	30,230	270	367

a. Amounts here include services and thus differ from those in column 15 of the Data Table in *The Development Data Book*.

1. What is the relationship between exports and imports in both countries in the period the graphs show? (Imports were greater than exports.)
2. Refer to the text. What happened in the early 1980s to world trade? What happened to exports and imports in Brazil and Malawi in the early 1980s?

2. Most of the cost of economic development is met by the people of developing countries: from their taxes, their savings, their exports, and loans from their banks. But grants and loans—from commercial and investment banks, private organizations, international institutions, and the foreign aid agencies of the governments of other countries—speed economic development. Mainly, they provide money for imports and expert advice. For the poorest countries, financial assistance is essential for standards of living to rise.

The table at the top of the next page shows the financial assistance that 23 countries provided to developing countries in 1986, either directly through their foreign aid agencies or indirectly through international institutions. Rank the countries by the amount of their aid and by the percentage of GNP their aid represented. If your country is listed, where does it rank? What other countries have a similar rank?

	GNP per capita (1986)	Aid 1986 (millions)	Aid as a percentage of GNP
United Arab Emirates	$14,680	$ 72	0.34
Kuwait	13,890	715	2.99
Switzerland	17,680	422	0.30
Sweden	13,160	1,090	0.85
Norway	15,400	798	1.20
Germany, Fed. Rep.	12,080	3,832	0.43
Denmark	12,600	695	0.89
United States	17,480	9,564	0.23
Saudi Arabia	6,950	3,575	4.52
France	10,720	5,105	0.72
Belgium	9,230	549	0.49
Netherlands	10,020	1,740	1.01
Canada	14,120	1,695	0.48
Australia	11,920	752	0.47
Finland	12,160	313	0.45
Austria	9,990	198	0.21
Japan	12,840	5,634	0.29
United Kingdom	8,870	1,750	0.32
New Zealand	7,460	75	0.30
Italy	8,550	2,404	0.40
Venezuela	2,920	85	0.19
Nigeria	640	52	0.10

3. Study the table below.

1. Which two of these four countries had the highest GNP per capita in 1986? Do these two countries export more manufactured goods or more primary goods?
2. Calculate the percentage increase in GNP per capita from 1975 to 1986 in each country. (Subtract the 1975 amount from the 1986 amount and divide the result by the 1975 amount.)
3. In which country did GNP per capita show the greatest percentage increase? the next greatest increase? Do these two countries export more manufactured goods or primary goods?
4. Which two of these four countries had the lowest GNP per capita in 1986? Do these two countries export more manufactured goods or primary goods?
5. Taking into account all the information in the table, which country do you think has made the most economic progress? Why?
6. Use the Data Table, your library, and other resources to find out as much as you can about each of the four countries in the table. What are the climate, location, geographic features, and natural resources of each country? What products does it export? What kind of government does it have? Do its citizens have the chance to go to school? Do they have enough to eat? How accessible are hospitals and clinics? Based on what you learn, discuss some of the factors that may influence whether a country exports more primary or more manufactured goods.

	Ratio of primary to manufactured merchandise exports (percent)		GNP per capita		Change +or− (percent)
	1975	1986	1975	1986	
Argentina	75/25	78/22	$1,490	$2,350	
Côte d'Ivoire	88/12	91/ 9	511	730	
Korea, Rep. of	18/82	9/91	578	2,370	
Pakistan	45/55	32/68	161	350	

Name _____

Date _____

Worksheet 5: Merchandise Exports

1. What are merchandise exports?

2. Why do countries want to export their products?

3. Is the value of merchandise exports in developing countries generally greater or lesser than in industrial countries?

4. List three examples of primary products.

5. In the past thirty years the exports of developing countries have
   a. maintained about the same shares of primary and manufactured goods.
   b. changed so that primary goods are now a larger share of exports.
   c. changed so that manufactured goods are now a larger share of exports.

6. A country has a comparative advantage when it can
   a. have first choice at buying another country's exports.
   b. buy a product at a cheaper price than any other country.
   c. sell a product at a cheaper price than any other country.

7. In the 1980s has more of the money flowing into developing countries come from exports or from new loans?

8. In 1986 developing countries as a whole spent about this much of their export earnings to pay off old debts.
   a. 20 cents out of every dollar.
   b. 30 cents out of every dollar.
   c. 40 cents out of every dollar.

9. Since 1960 the total value of exports has
   a. increased in both developing and industrial countries.
   b. increased in industrial countries and decreased in developing countries.
   c. increased in developing countries and decreased in industrial countries.

10. Which statement is NOT true?
    a. If a country spends its export earnings on paying back old loans instead of buying essential imports, its economy grows very rapidly.
    b. If a country exports products whose prices have fallen compared with other products, it may have less money to spend on essential imports.
    c. If a country exports more products at higher prices, it can afford both to pay back its old loans and to import more goods.

Culminating Activities

[These activities allow students to synthesize and evaluate the knowledge and understanding they have acquired.]

Questions for Discussion

1. There are many reasons for the differences in standards of living in industrial and developing countries. The reasons fall into at least the five categories listed below. What reasons can you think of? Into which category do they fit? Can you think of other categories?

- technology
- history
- culture
- natural resources
- social and political institutions.

2. Energy consumption increases with economic development. Today, industrial countries, on average, consume many times more energy than developing countries. How might these facts affect economic growth in the future? What steps might be taken to maintain economic growth and to protect and increase energy sources at the same time?

3. Developing industry is a step toward raising standards of living in developing countries. But modern industry can cause pollution and the wasteful use of scarce natural resources. What steps can be taken to raise standards of living and protect the environment at the same time?

4. Many observers say that, of all the regions where developing countries are located, Sub-Saharan Africa faces the gravest problems.

1. What statistics support this view?
2. What do you know about each of the following that helps to explain the conditions in Sub-Saharan Africa?
   - its history
   - its social and political organization
   - geographic factors
   - diseases
   - climate.

5. If standards of living in developing countries remain the same or decline, what do you think is likely to happen in those countries? in the world?

6. Economic development brings many changes to a developing country, and people must adapt to these changes.

- In what ways is a country's culture weakened by economic development? In what ways is it strengthened?
- Do you think the overall effect of development on people in developing countries is to make life better or worse? or better in some ways and worse in others? Give reasons for your answer.

7. Many factors—within developing countries and outside them—influence economic development. Consider the factors below and explain what their effect might be on the development program of a developing country.

- high import tariffs in industrial countries on goods from developing countries
- an increase in corruption in the government
- a new leader who favors some groups in the country and discriminates against others
- the threat of invasion from a neighboring state
- a sharp increase in interest rates on loans to developing countries
- the organization of a political party that opposes the party in power
- a natural catastrophe, such as famine or earthquake
- a large increase in the price of fuel oil
- a weakening of the commitment of a country's leaders to economic development
- public demand to import luxury goods
- increased use of synthetic materials (plastic, synthetic rubber, nylon, etc.) in place of natural materials.

8. Study the photographs on the cover of *The Development Data Book*. The people in these photographs all live in developing countries. What are some of the ways in which the work they are doing contributes to the economic and social development of their countries?

9. Do you agree or disagree with the following statement? Give reasons for your answer.

Economic growth is the most important measure of a country's development.

Questions about Values

1. Discuss these questions:

1. What do teenagers in your country value the most? List eight or ten things on which most members of the class agree.
2. List five things a teenager in a village in a low-income developing country might value.
3. List five things a teenager living in a city in a middle-income developing country might value.
4. What do your lists suggest about the values of teenagers throughout the world?

2. Listed below are some feelings arranged in pairs. The line between each pair represents a continuum.

1. Circle the number on each continuum that represents the feelings you think teenagers in your country have when they think about living conditions in developing countries.

anger	1	2	3	4	5	apathy
fear	1	2	3	4	5	security
guilt	1	2	3	4	5	no guilt
ignorance	1	2	3	4	5	knowledge
despair	1	2	3	4	5	hope
boredom	1	2	3	4	5	curiosity

2. Why do you think teenagers have these feelings about developing countries?
3. What do you think teenagers should do about their feelings?

Research Activity

Design development activities or draw up a development plan for a developing country.

1. Select a developing country; describe conditions in that country using at least eight indicators from *The Development Data Book*.
2. Do library research to acquire additional information about the country:
   - its geographic features
   - its natural resources
   - its exports and imports
   - the distribution of its population
   - its relationship with its neighbors
   - its social and political organization
   - other information that you think might be relevant to its economic development.
3. Listed here are some policies developing countries follow to advance economic development. Study the list and rank the policies in the order you think is appropriate for the country you have selected. Write number 1 (most appropriate) through 7 (least appropriate) on the line to the left of the policy.

___ Improve and extend the physical facilities that underlie economic growth—roads, ports, electric power, telephone and radio systems, transport systems. ___

___ Increase agricultural output to provide more food and to increase the income of farm families. ___

___ Expand industry to provide jobs and to produce goods needed for domestic consumption and for export. ___

___ Develop export products to earn money for goods and services that cannot be produced in the country but are essential for economic development. ___

___ Develop human resources by providing greater educational opportunity and better health services. ___

___ Assist the poorest people in meeting their basic needs—for food, health care, education, safe water, and jobs. ___

___ Slow down population growth. ___

4. Decide the percentage of the resources available for economic development that you will allocate to each of the policies listed in step 3 above. Your total allocation must be 100 percent, but you need not allocate resources to all policies. Write the percentage on the line that follows the policy statement.
5. Taking into account your knowledge of the country and the priorities you have established, do one of the following.
   - Design a development activity or set of activities that advances one of the policies; or
   - Draw up a five-year development plan for the country that takes all policies into account.

Topics for Debate

1. *Resolved:* That industrial countries should assist developing countries in raising their standards of living.

2. *Resolved:* That economic growth in developing countries is a threat to industrial countries.

3. *Resolved:* That industrial countries should solve poverty at home before they try to help solve poverty in developing countries.

4. *Resolved:* That the problems facing developing countries today are greater than those they faced in the past.

Name _____

Date _____

Test: The Development Data Book

[This test measures the achievement of the instructional objectives listed in the introduction to this teaching guide.]

Part One

Indicate the country group—or groups—for which each of the following statistics could be characteristic. Write the appropriate letter (or letters) in the space at the left of the statistic:

L—low-income developing country
M—middle-income developing country
I—industrial country

1. Infant mortality rate
   _____ 70 per 1,000 live births
   _____ 132 per 1,000 live births

2. Life expectancy at birth
   _____ 75 years
   _____ 48 years

3. Primary school enrollment
   _____ 70 percent
   _____ 99 percent

4. GNP per capita
   _____ $250
   _____ $1,270

5. GNP per capita growth rate
   _____ 2.5 percent
   _____ −0.2 percent

6. Value of merchandise exports
   _____ $500,000,000
   _____ $80,000,000,000

7. Population growth rate
   _____ 2.3 percent
   _____ 0.5 percent

8. Population per physician
   _____ 17,000
   _____ 500

Part Two

Circle the letter preceding the phrase that correctly completes the sentences below.

9. Life expectancy at birth is higher in developing countries now than in 1960 because:
   a. health care is improving.
   b. more infants are surviving.
   c. more people have access to safe water.
   d. all of the above.

10. Primary school enrollment is increasing in developing countries because:
   a. more children are attending school.
   b. more money is being spent on schools, teacher training, and textbooks.
   c. governments are encouraging parents to send their children to school.
   d. all of the above.

11. Population growth rates are high in developing countries because:
   a. birth rates are low.
   b. death rates are going up.
   c. parents continue to have many children.
   d. all of the above.

12. GNP per capita is increasing in most developing countries because:
   a. the production of goods and services is increasing faster than population.
   b. population growth is slowing down.
   c. more goods and services are available.
   d. all of the above.

13. When a developing country produces more exports, it can:
   a. import more goods and services.
   b. borrow more money from abroad.
   c. make payments on loans.
   d. all of the above.

14. Low-income developing countries have:
   a. rapidly increasing population, a high primary school enrollment rate, a high GNP per capita growth rate.
   b. declining death rates, declining infant mortality, GNP per capita of $425 or less.
   c. high life expectancy at birth, increasing primary school enrollment, merchandise exports of less than $1,000,000,0000.
   d. all of the above.

15. Middle-income developing countries have:
   a. a high birth rate, increasing energy consumption per capita, a high secondary school enrollment ratio.
   b. declining death rate, increasing life expectancy, high population growth rate.
   c. decreasing primary school enrollment, merchandise exports of more than $30,000,000,000, GNP per capita over $12,500.
   d. all of the above.

Part Three

Pablo is a teenage boy, and Sita is a teenage girl. Both live in small villages in low-income developing countries. Assume that their lives are typical of teenagers' lives in low-income developing countries. Write an essay in which you:

- Describe at least three *ways* in which Pablo's or Sita's life is different from yours.
- Give at least three *reasons* why his or her life is different from yours.

Part Four

The table below gives statistics for two countries.

	Country A	*Country B*
1. Population	6,300,000	48,000,000
2. Life expectancy at birth	44 years	63 years
3. Infant mortality rate per 1,000 live births	208	53
4. Population per physician	48,510	7,180
5. Primary school enrollment rate	19%	96%
6. Average annual population growth rate	2.0%	2.8%
7. GNP per capita	$240	$770
8. Average annual GNP per capita growth rate	1.1%	4.6%
9. Percentage of labor force in agriculture	82%	76%
10. Value of merchandise exports	$75,000,000	$10,000,000,000

Choose the country in the table that answers the questions below. In the spaces provided, write the letter for the country and the number (or numbers) from 1 to 10 to indicate the statistic (or statistics) that support your choice. In some cases, more than one type of statistics will be needed.

16. Which country has the larger number of farmers?
    Country _____ Statistics _____
17. In which country will population increase more rapidly if present trends continue?
    Country _____ Statistics _____
18. In which country are school-age children less likely to be enrolled in primary school?
    Country _____ Statistics _____
19. In which country are there more infant deaths?
    Country _____ Statistics _____
20. In which country are the goods and services available each year increasing less quickly?
    Country _____ Statistics _____
21. Which country sells fewer goods to other countries?
    Country _____ Statistics _____
22. Which country will have fewer people with skills in the future if present trends continue?
    Country _____ Statistics _____
23. In which country is health care better?
    Country _____ Statistics _____
24. In which country will the number of people added to the population each year be lesser if present trends continue?
    Country _____ Statistics _____

Part Five

Do you think that living conditions in developing countries have improved since 1960, or worsened, or both? Express your opinion and use statistics to support it.

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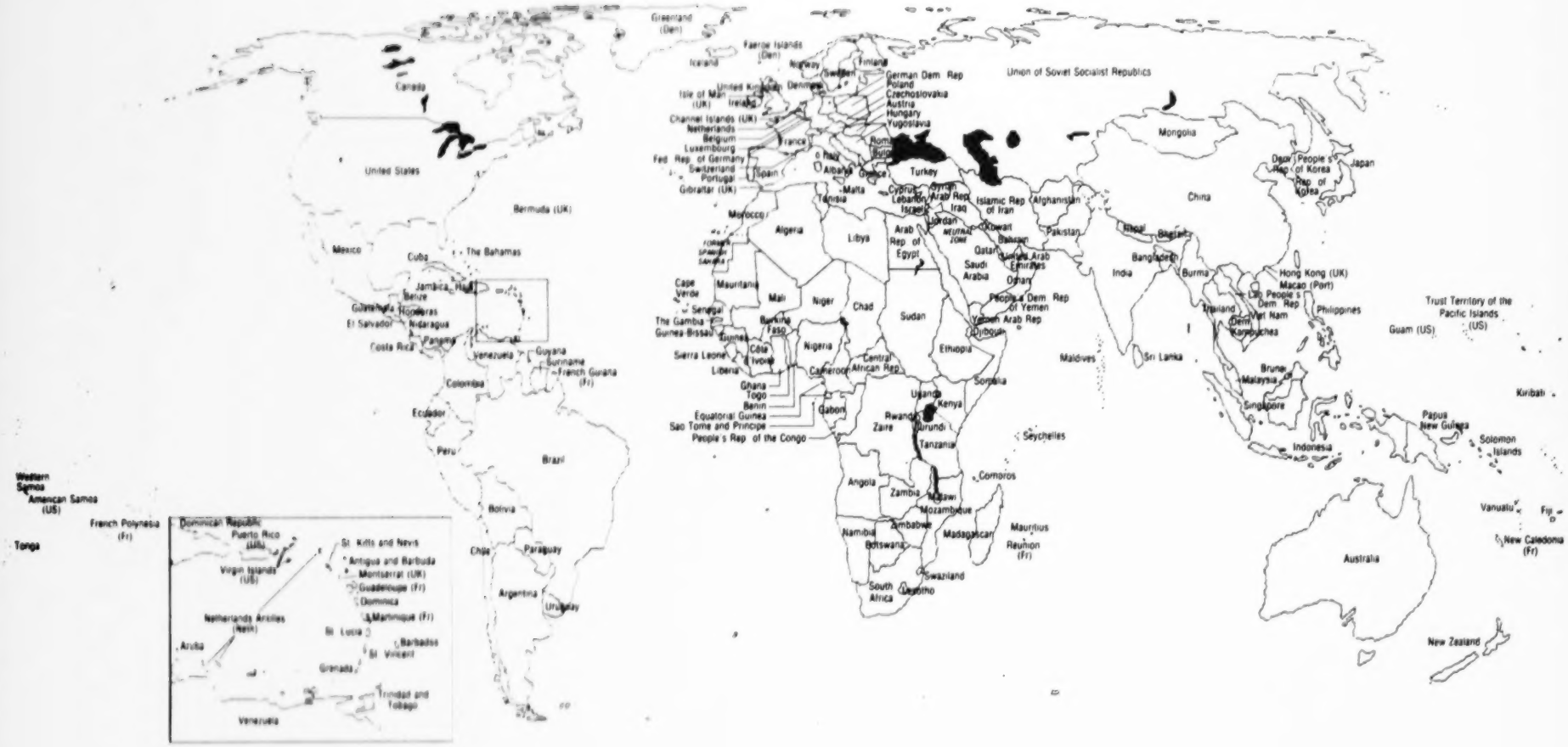

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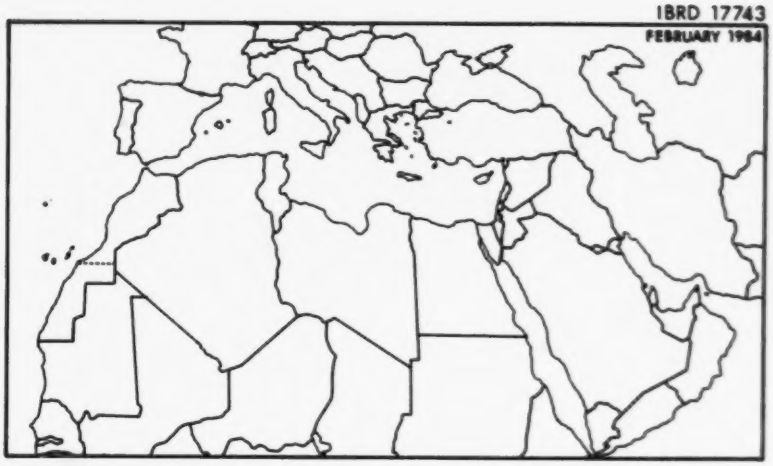

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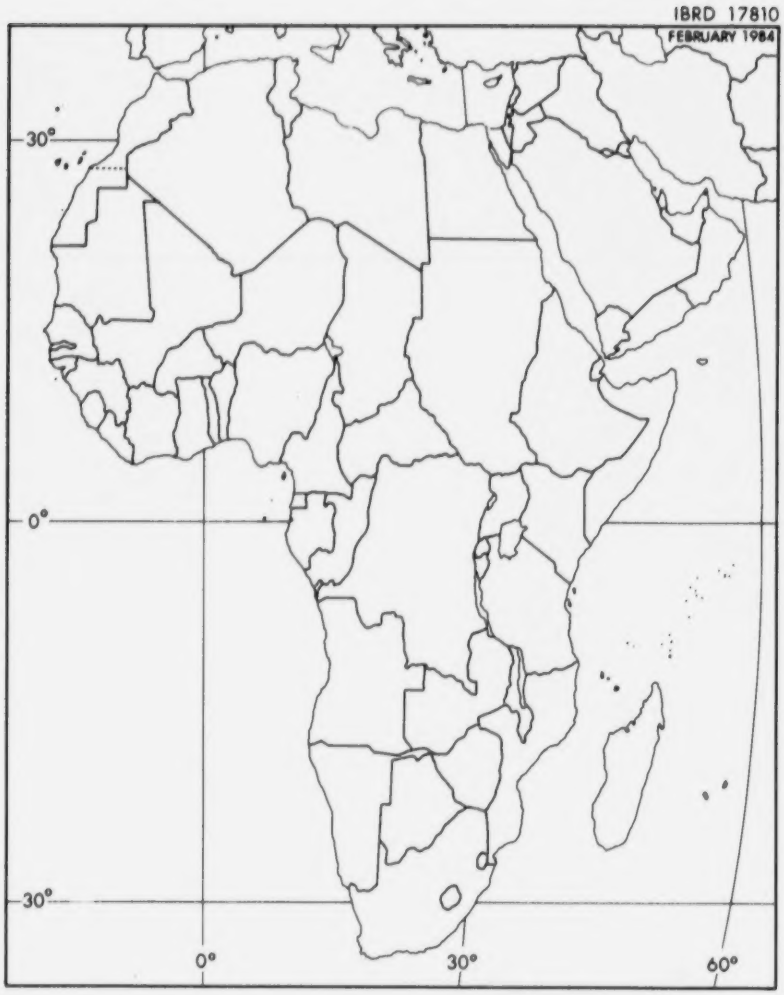

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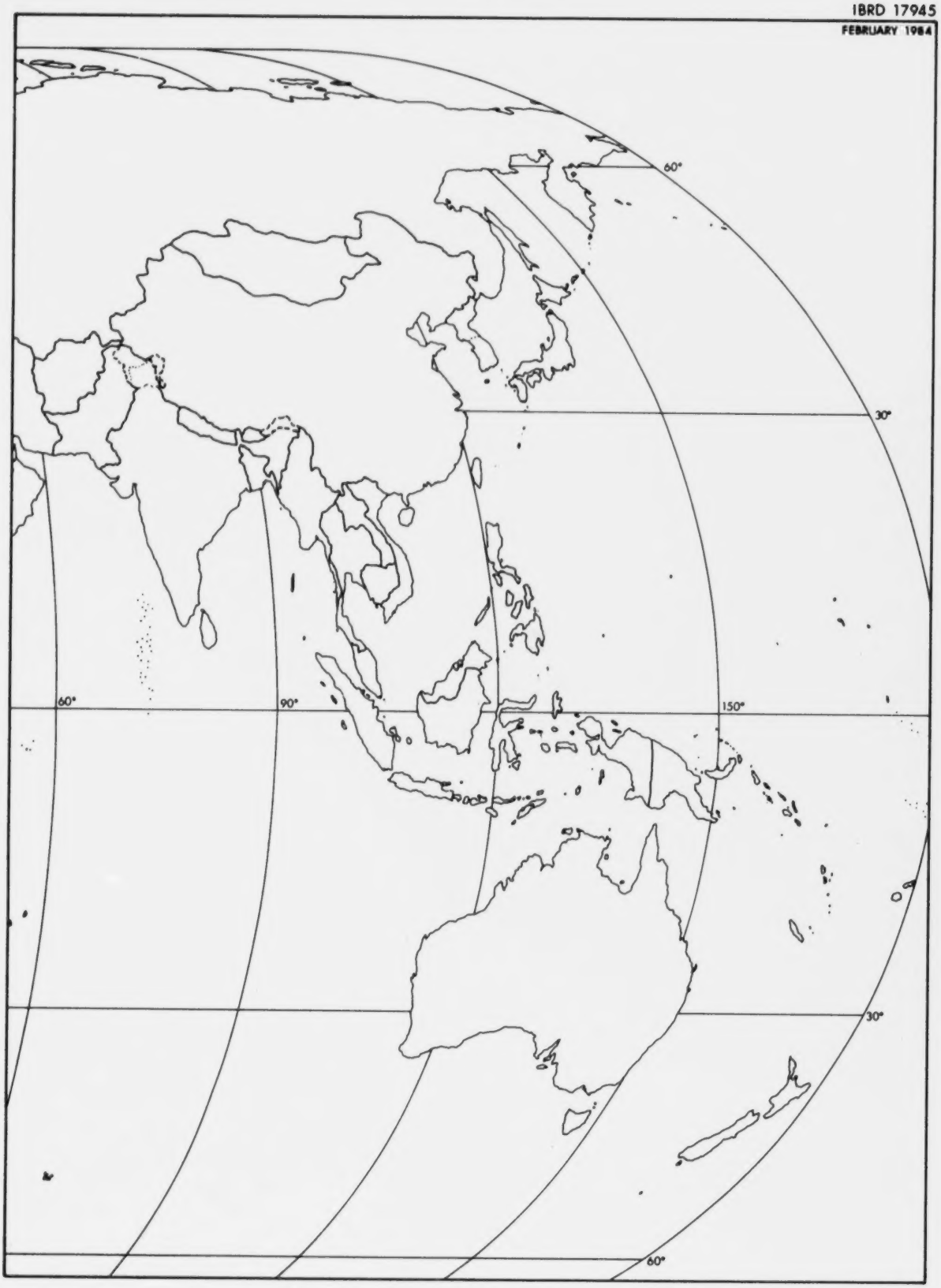

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COMPARATIVE DATA TABLE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)

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What Is the World Bank?

The World Bank—which comprises the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA)—is an international institution owned by the governments of more than 150 countries. Its purpose is to help its developing member countries improve economic and social conditions so that their people may live better and fuller lives. It does this by lending money to governments. Most of the money is used for development projects. These projects might help countries increase agricultural productivity; promote rural and urban development; build roads, power stations, schools, and health clinics; modernize industries; expand telecommunications networks; or construct water and sewerage facilities. The World Bank also helps governments undertake economic policy reforms, provides advice and technical assistance, and serves as a catalyst to stimulate investment and lending by others. IBRD loans are generally less expensive than commercial bank loans and have longer repayment periods. IDA loans—which are made to the Bank's poorest member countries—are interest-free and have even longer repayment periods. The IBRD began operations in 1946; IDA was founded in 1960. Together their loans to developing countries now amount to about $20 billion a year.

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